The author is constantly and terribly mixed up in his statements and notations, though of course not in his ideas, about number and magnitude. Unless the reader can supply a great deal he cannot properly interpret the statements on pages 9, 43, 66, 343, and I fear that there are exercises (for the freshman) on this last page which I could not myself answer with any assurance of agreeing with the author.

Slichter's Elementary Mathematical Analysis should be widely tried out, if only for the rest that it will give the teacher from the familiar beaten paths; there is a charming freshness about the work and, whether we like it or not, it is bound to be ranked as a distinct contribution to the theory and practice of freshman instruction in mathematics.

E. B. Wilson.

Massachusetts Institute of Technology.

PROBLEMS AND SOLUTIONS.

Edited by B. F. Finkel and R. P. Baker.

PROBLEMS FOR SOLUTION.

ALGEBRA.

When this issue was made up, no solutions had been received for numbers 417–426.

426. Proposed by HERBERT N. CARLETON, West Newbury, Mass.

Find all the solutions of the equation $x\sqrt[x]{x} = x^x$.

427. Proposed by CLIFFORD N. MILLS, Brookings, S. Dak.

If $r\sin(\theta+\alpha) = m$ and $r\cos(\theta+\beta) = n$, show that

$$r = \frac{\sqrt{m^2+n^2-2mn\sin(\alpha-\beta)}}{\cos(\alpha-\beta)},$$

GEOMETRY.

When this issue was made up, no solutions had been received for numbers 447–8, 450–454.

455. Proposed by R. P. BAKER, University of Iowa.

Find the minimum triangle of assigned angles inscribed in a given triangle.

456. Proposed by J. W. CLAWSON, Ursinus College.

The interior and exterior bisectors of the angles A, B, C of a triangle meet the opposite sides in U, U'; V, V'; W, W' respectively. Circles are drawn on UU', VV', WW' as diameters (Circles of Apollonius.) Prove that (1) These three circles have a common chord. (2) The centre of the circumcircle lies on this common chord.

CALCULUS.

When this issue was made up, no solutions had been received for numbers 358, 361–2, 364–372, 374–5, and 377.

376. Proposed by S. A. COREY, Hiteman, Iowa.

Prove that

$$\frac{1}{z}-\frac{1}{z}(1-2xz+z^2)^{\frac{1}{2}} = x+\frac{z}{2}\left(\frac{x^2-1}{1-xz}\right)+\sum_{n=2}^{\infty}\frac{1, 3, 5\cdots 2n-3}{2, 4, 6\cdots 2n}(x^2-1)^n\left(\frac{z}{1-xz}\right)^{2n-1}$$